

## Product datasheet for **AR51036PU-N**

### HSPA5 / GRP78 (19-654, His-tag) Human Protein

#### Product data:

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	HSPA5 / GRP78 (19-654, His-tag) human protein, 0.5 mg
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	MGSSHHHHHH SSGLVPRGSH MGSEEDKKE DVGTVVGIDL GTTYSCVGVF KNGRVEIIAN DQGNRITPSY VAFTPEGERL IGDAAKNQLT SNPENTVFDA KRLIGRTWND PSVQQDIKFL PFKVVEKTK PYIQVDIGGG QTKTFAPEEI SAMVLTKMKE TAEAYLGKKV THAVVTPAY FNDAQRQATK DAGTIAGLNV MRIINEPTAA AIAYGLDKRE GEKNILVFDL GGGTFDVSLL TIDNGVFEW ATNGDTHLGG EDFDQVRMEH FIKLYKKKTG KDVRKDNRAV QKLREVEKA KRALSSQHQA RIEIESFYEG EDFSETLTRA KFEELNMDLF RSTMKPVQKV LEDSDLKKS DIDEIVLVGGS TRIPKIQQLV KEFFNGKEPS RGINPDEAVA YGAAVQAGVL SGDQDTGDLV LLDVCPLTLG IETVGGVMTK LIPRNTVVPT KKSQIFSTAS DNQPTVTIKV YEGERPLTKD NHLLGTFDLT GIPPAPRGVP QIEVTFEIDV NGILRVTAED KGTGNKNKIT ITNDQNRLTP EEIERMVNDA EKFAEEDKKL KERIDTRNEL ESYAYSLKNQ IGDKEKLGK LSSDKETME KAVEEKIEWL ESHQDADIED FKAKKKELEE IVQPIISKLY GSAGPPPTGE EDTAEKDEL
<b>Tag:</b>	His-tag
<b>Predicted MW:</b>	72.9 kDa
<b>Concentration:</b>	lot specific
<b>Purity:</b>	>90% by SDS - PAGE
<b>Buffer:</b>	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 20% glycerol, 1 mM DTT
<b>Preparation:</b>	Liquid purified protein
<b>Storage:</b>	Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>RefSeq:</b>	<a href="#">NP_005338</a>
<b>Locus ID:</b>	3309



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UniProt ID: [P11021](#)

Cytogenetics: 9q33.3

Synonyms: 78 kDa glucose-regulated protein, Heat shock 70 kDa protein 5, BiP

**Summary:** The protein encoded by this gene is a member of the heat shock protein 70 (HSP70) family. This protein localizes to the lumen of the endoplasmic reticulum (ER) where it operates as a typical HSP70 chaperone involved in the folding and assembly of proteins in the ER and is a master regulator of ER homeostasis. During cellular stress, as during viral infection or tumorigenesis, this protein interacts with the transmembrane stress sensor proteins PERK (protein kinase R-like endoplasmic reticulum kinase), IRE1 (inositol-requiring kinase 1), and ATF6 (activating transcription factor 6) where it acts as a repressor of the unfolded protein response (UPR) and also plays a role in cellular apoptosis and senescence. Elevated expression and atypical translocation of this protein to the cell surface has been reported in viral infections and some types of cancer cells. At the cell surface this protein may facilitate viral attachment and entry to host cells. This gene is a therapeutic target for the treatment of coronavirus diseases and chemoresistant cancers. [provided by RefSeq, Jul 2020]

**Protein Families:** Druggable Genome

**Protein Pathways:** Antigen processing and presentation, Prion diseases

### Product images:

